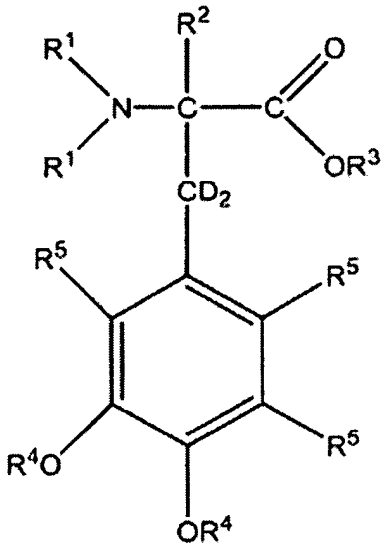
Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Previously presented) Deuterated catecholamine derivatives of the general formula I



Formula I

wherein

R^1 is H or D, R^2 indicates H or D, R^3 is H, D, C_1-C_6 alkyl or C_5 to C_6-cycloalkyl, deuterated C_1 to C_6-alkyl or deuterated C_5 to C_6-cycloalkyl, R^4 indicates H or D and R^5 is H or D, and wherein at least one of R^1, R^2, R^3 and R^4 is D.

2. (Original) Deuterated catecholamine derivatives according to claim 1, wherein R^1 is H or D, R^2 indicates H or D, R^3 is H, D, C_1 to C_6-alkyl or C_5 to C_6-cycloalkyl, deuterated C_1 to C_6-alkyl

or deuterated C_5 to C_6-cycloalkyl, R^4 indicates H or D and R^5 is D.

3. (Original) Deuterated catecholamine derivatives according to claim 1, wherein R^1 is H or D, R^2 indicates D, R^3 is D, C_1 to C_6-alkyl or C_5 to C_6-cycloalkyl, deuterated C_1 to C_6-alkyl or deuterated C_5 to C_6-cycloalkyl, R^4 indicates H or D and R^5 is D.

4. (Original) Deuterated catecholamine derivatives according to claim 1, wherein R^1 is H or D, R^2 indicates D, R^3 is H, D, C_1 to C_6-alkyl or C_5 to C_6-cycloalkyl, deuterated C_1 to C_6-alkyl or deuterated C_5 to C_6-cycloalkyl, R^4 indicates H or D and R^5 is D.

5. (Previously presented) Deuterated catecholamine derivatives according to the general formula I, wherein R^1 is H or D, R^2 indicates D, R^3 is C_1 to C_6-alkyl or C_5 to C_6-cycloalkyl, R^4 indicates H or D and R^5 is D.

6. (Original) Deuterated catecholamine derivatives according to claim 1, wherein R^1 is H or D, R^2 indicates D, R^3 is methyl, R^4 indicates H or D and R^5 is D.

7. (Original) Deuterated catecholamine derivatives according to claim 1, wherein R^1 is H or D, R^2 indicates D, R^3 is ethyl, R^4 indicates H or D and R^5 is D.

8. (Original) Deuterated catecholamine derivatives according to claim 1, wherein R^1 is H or D, R^2 indicates D, R^3 is perdeuteroethyl, R^4 indicates H or D and R^5 is D.

9. (Original) Deuterated catecholamine derivatives according to claim 1, wherein R^1 is H or D, R^2 indicates H or D, R^3 is perdeuteroethyl, R^4 indicates H or D and R^5 is D.

10. (Original) Deuterated catecholamine derivatives according to claim 1, wherein R^1 is H or D, R^2 indicates H or D, R^3 is perdeuteroethyl, R^4 indicates D and R^5 is H or D.

11. (Previously presented) Deuterated catecholamine derivatives of the general formula I according to claim 1 selected from the group consisting of

L-2-amino-3,3-dideutero-3-(3,4-dihydroxyphenyl) perdeuteromethyl propionate;

L-2-amino-3,3-dideutero-3-(3,4-dihydroxyphenyl) perdeuteroethyl propionate;

L-2-amino-3,3-dideutero-3-(3,4-dihydroxyphenyl) perdeuterocyclohexyl propionate;

L-2-amino-2,3,3-trideutero-3-(3,4-dihydroxyphenyl) propionic acid;

L-2-amino-2,3,3-trideutero-3-(3,4-dihydroxyphenyl) methyl propionate;

L-2-amino-2,3,3-trideutero-3-(3,4-dihydroxyphenyl) ethyl propionate;

L-2-amino-2,3,3-trideutero-3-(3,4-dihydroxyphenyl) cyclohexyl propionate;

L-2-amino-2,3,3-trideutero-3-(3,4-dihydroxyphenyl) perdeuteromethyl propionate;

L-2-amino-2,3,3-trideutero-3-(3,4-dihydroxyphenyl) perdeuteroethyl propionate;

L-2-amino-2,3,3-trideutero-3-(3,4-dihydroxyphenyl) perdeuterocyclohexyl propionate;

L-2-amino-2,3,3-trideutero-3-(2,3,6-trideutero-4,5-dihydroxyphenyl) propionic acid;

L-2-amino-2,3,3-trideutero-3-(2,3,6-trideutero-4,5-dihydroxyphenyl) methyl propionate;

L-2-amino-2,3,3-trideutero-3-(2,3,6-trideutero-4,5-dihydroxyphenyl) ethyl propionate;

L-2-amino-2,3,3-trideutero-3-(2,3,6-trideutero-4,5-dihydroxyphenyl) cyclohexyl propionate;

L-2-amino-2,3,3-trideutero-3-(2,3,6-trideutero-4,5-dihydroxyphenyl) perdeuteromethyl propionate;

L-2-amino-2,3,3-trideutero-3-(2,3,6-trideutero-4,5-dihydroxyphenyl) perdeuteroethyl propionate;

L-2-amino-2,3,3-trideutero-3-(2,3,6-trideutero-4,5-dihydroxyphenyl) perdeuterocyclohexyl propionate;

L-2-amino-2,3,3-trideutero-3-(2,3,6-trideutero-4,5-dideuteroxyphenyl) perdeuterocyclohexyl propionate; and

L-2-amino-3,3-dideutero-3-(4,5-dideuteroxyphenyl) perdeuterocyclohexyl propionate.

Claims 12-33 (Canceled).

34. (Previously presented) A method for the treatment of dopamine deficiency diseases or diseases which are based on disrupted tyrosine transport or disrupted tyrosine decarboxylase, such as Parkinson's disease, restless leg syndrome, dystonia, for inhibiting prolactin secretion, for stimulating the release of growth hormone, for the treatment of neurological symptoms of chronic manganese intoxications, of amyotrophic lateral sclerosis and of multiple system atrophy, said method comprising administering to a patient in need thereof an effective amount of the deuterated catecholamine derivatives according to claim 1 as well as physiologically compatible salts thereof.

35. (Previously presented) A method for the treatment of dopamine deficiency diseases or diseases which are based on disrupted tyrosine transport or disrupted tyrosine decarboxylase, such as Parkinson's disease, restless leg syndrome, dystonia, for inhibiting prolactin secretion, for stimulating the release of growth hormone, for the treatment of neurological symptoms of chronic manganese intoxications, of amyotrophic lateral sclerosis and of multiple system atrophy, said method comprising administering to a patient in need thereof an effective amount of deuterated catecholamine derivatives according to claim 1 as well as physiologically compatible salts thereof, in combination with an enzyme inhibitor or several enzyme inhibitors.

36. (Previously presented) The method as claimed in claim 35 wherein the enzyme inhibitor or the enzyme inhibitors involve decarboxylase inhibitors and/or catechol-O-methyltransferase inhibitors and/or monoamine oxidase inhibitors and/or β-hydroxylase inhibitors.

37. (Previously presented) The method as claimed in claim 36 wherein the decarboxylase inhibitor is selected from the group consisting of D,L-serine 2-(2,3,4-trihydroxybenzyl) hydrazide (benserazide), (-)-L-α-hydrazino-3,4-dihydroxy-α-methylhydrocinnamic acid (carbidopa), L- serine 2-(2,3,4-trihydroxybenzyl) hydrazide, glycine 2-(2,3,4-trihydroxybenzyl) hydrazide and L-tyrosine 2-(2,3,4-trihydroxybenzyl) hydrazide as well as physiologically compatible salts thereof.

38. (Previously presented) The method as claimed in claim 36 wherein the catechol-O-methyltransferase inhibitor is selected from entacapone and cabergoline as well as

physiologically compatible salts thereof.

39. (Previously presented) The method as claimed in claim 36 wherein the monoamine oxidase inhibitor is selected from the group consisting of selegiline, moclobemide and tranylcypromine as well as physiologically compatible salts thereof.

40. (Previously presented) The method as claimed in claim 36 wherein the β-hydroxylase inhibitor is selected from calcium 5-butyl picolinate and calcium 5-pentyl picolinate as well as physiologically compatible salts thereof.

Claim 41 (Currently amended) A method for the production of pharmaceuticals ~~for the prophylaxis of psychoses as well as for the treatment of acute psychoses, particularly in the case of negative symptomatology and for the treatment of Parkinson's disease, restless leg syndrome, of amyotrophic lateral sclerosis and of multiple system atrophy~~, said method comprising the steps of providing deuterated catecholamine derivatives according to claim 1 as well as physiologically compatible salts thereof and combining said deuterated catecholamine derivates and their physiologically compatible salts with pharmaceutically compatible adjuvants and additives.

42. (Currently amended) A pharmaceutical composition, which contains deuterated ~~catecholamined~~ catecholamine according claim 1 as well as physiologically compatible salts thereof~~, for the treatment of Parkinson's disease, of restless leg syndrome, of dystonia, for~~

~~inhibiting prolactin secretion, for stimulating the release of growth hormone, for the treatment of neurological symptoms of chronic manganese intoxications, of amyotrophic lateral sclerosis and of multiple system atrophy~~, in addition to pharmaceutically compatible adjuvants and additives.

43. (Currently amended) A pharmaceutical composition, which contains a deuterated catecholamine ~~derivatives~~ derivative according to claim 1 as well as physiologically compatible salts thereof, ~~for the treatment of Parkinson's disease, restless leg syndrome, dystonia, for inhibiting prolactin secretion, for stimulating the release of growth hormone, for the treatment of neurological symptoms of chronic manganese intoxications, of amyotrophic lateral sclerosis and of multiple system atrophy,~~ as well as one or more enzyme inhibitors, in addition to pharmaceutically compatible adjuvants and additives.

44. (Original) The pharmaceutical composition according to claim 43, further characterized in that the enzyme inhibitor or the enzyme inhibitors involve decarboxylase inhibitors and/or catechol-O-methyltransferase inhibitors and/or monoamine oxidase inhibitors and/or β-hydroxylase inhibitors.

45. (Original) The pharmaceutical composition according to claim 43, further characterized in that the decarboxylase inhibitor is selected from the group consisting of D,L-serine 2-(2,3,4-trihydroxybenzyl) hydrazide (benserazide), (-)-L-α -hydrazino-3,4-dihydroxy-α-methylhydrocinnamic acid (carbidopa), L-serine 2-(2,3,4-trihydroxybenzyl) hydrazide, glycine 2-(2,3,4-trihydroxybenzyl) hydrazide and L-tyrosine 2-(2,3,4-trihydroxybenzyl) hydrazide as

well as physiologically compatible salts thereof.

46. (Original) The pharmaceutical composition according to claim 43, further characterized in that the catechol-O-methyltransferase inhibitor is selected from entacapone and cabergoline as well as physiologically compatible salts thereof.

47. (Original) The pharmaceutical composition according to claim 43, further characterized in that the monoamine oxidase inhibitor is selected from the group consisting of selegiline, moclobemide and tranylcypromine as well as physiologically compatible salts thereof.

48. (Original) The pharmaceutical composition according to claim 43, further characterized in that the β-hydroxylase inhibitor is selected from calcium 5-butyl picolinate and calcium 5-pentyl picolinate as well as physiologically compatible salts thereof.

49. (Previously presented) A method for the prophylaxis of psychoses, particularly also of schizophrenia, as well as for the treatment of acute psychoses, particularly in the case of negative symptomatology and particularly also schizophrenia, said method comprising administering to a patient in need thereof an effective amount of the deuterated catecholamine derivatives according to claim 1 as well as physiologically compatible salts thereof.

50. (Previously presented) A method for the prophylaxis of psychoses, as well as for the treatment of acute psychoses, particularly in the case of negative symptomatology, said method

comprising administering to a patient in need thereof an effective amount of the deuterated catecholamine derivatives according to claim 1 as well as physiologically compatible salts thereof, in combination with one or more enzyme inhibitors.

51. (Previously presented) The method as claimed in claim 50 wherein the enzyme inhibitor or the enzyme inhibitors involve decarboxylase inhibitors and/or catechol-O-methyltransferase inhibitors and/or monoamine oxidase inhibitors and/or β-hydroxylase inhibitors.

52. (Previously presented) The method as claimed in claim 51 wherein the decarboxylase inhibitor is selected from the group consisting of D,L-serine 2-(2,3,4-trihydroxybenzyl) hydrazide (benserazide), (-)-L-α-hydrazino-3,4-dihydroxy-α-methylhydrocinnamic acid (carbidopa), L-serine 2-(2,3,4-trihydroxybenzyl) hydrazide, glycine 2-(2,3,4-trihydroxybenzyl) hydrazide and L-tyrosine 2-(2,3,4-trihydroxybenzyl) hydrazide as well as physiologically compatible salts thereof.

53. (Previously presented) The method as claimed in claim 51 wherein the catechol-O-methyltransferase inhibitor is selected from entacapone and cabergoline as well as physiologically compatible salts thereof.

54. (Previously presented) The method as claimed in claim 51 wherein the monoamine oxidase inhibitor is selected from the group, consisting of selegiline, moclobemide and tranylcypromine as well as physiologically compatible salts thereof.

55. (Previously presented) The method as claimed in claim 51 wherein the β-hydroxylase inhibitor is selected from calcium 5-butyl picolinate and calcium 5-pentyl picolinate as well as physiologically compatible salts thereof.

Claims 56-63 (Canceled).